

**Dr. Duke's Phytochemical and Ethnobotanical Databases**

**List of Plants for ALPHA-PINENE**

| Plant                         | Part                | Low PPM | High PPM | StdDev               | Reference  |
|-------------------------------|---------------------|---------|----------|----------------------|--|
| <i>Abies balsamea</i>         | Plant               | 545.0   | 5050.0   | 3.0923482814746928   | --   |
| <i>Abies spectabilis</i>      | Leaf                | 150.0   | 515.0    | -0.19110838141157097 | --   |
| <i>Abies alba</i>             | Resin, Exudate, Sap |         |          |                      | --   |
| <i>Abies sachalinensis</i>    | Branches            | 2400.0  | 2700.0   |                      | --   |
| <i>Abies alba</i>             | Plant               | 590.0   | 826.0    | 0.103074737609829    | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Achillea millefolium</i>   | Leaf                | 1.0     | 1000.0   | -0.15961997585151536 | --   |
| <i>Acinos alpinus</i>         | Shoot               |         | 0.5      | -0.1473986407055565  | Velasco-Negueruela,A., Perez-Alonso,M.J., Jiminez,S.M. and Garcia,F.M. 1993. The Volatile Constituents of <i>Acinus alpinus</i> (L.) Moench ssp. <i>meridionalis</i> (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.) |
| <i>Acinos suaveolens</i>      | Shoot               |         | 9500.0   | 0.8000049482979785   | Jim Duke's personal files.   |
| <i>Acinos alpinus</i>         | Shoot               |         | 0.5      | -0.1473986407055565  | Velasco-Negueruela,A.. Perez-Alonso,M.J., Jiminez,S.M. and Garcia,F.M. 1993. The Volatile Constituents of <i>Acinus alpinus</i> (L.) Moench ssp. <i>meridionalis</i> (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.) |
| <i>Acorus calamus</i>         | Rhizome             |         | 280.0    | -1.3131983079178744  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Aesculus hippocastanum</i> | Flower Essent. Oil  |         | 177000.0 | 1.0                  | Jim Duke's personal files.   |
| <i>Agastache rugosa</i>       | Tissue Culture      |         |          |                      | Jim Duke's personal files.   |
| <i>Agastache foeniculum</i>   | Plant               | 1.0     | 35.0     | -0.4567063639993349  | --   |
| <i>Agastache rugosa</i>       | Essential Oil       |         |          |                      | Jim Duke's personal files.   |
| <i>Agastache urticifolia</i>  | Plant               |         | 32.0     | -0.45882942759582984 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Agastache nepetoides</i>   | Plant               |         | 20.0     | -0.46732168198180957 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Agathosma betulina</i>     | Leaf                |         |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Agathosma betulina</i>     | Leaf Essent. Oil    |         |          |                      | --   |

| Plant                 | Part                | Low PPM | High PPM | StdDev               | Reference   |
|-----------------------|---------------------|---------|----------|----------------------|---|
| Ageratum conyzoides   | Plant               | 0.8     | 6.5      | -0.47687546816603676 | --  |
| Ageratum conyzoides   | Shoot               |         | 420.0    | -0.10556109077271972 | R. Vera, (1993); Chemical composition of the essential oil Ageratum conyzoides L. (Asteraceae) from Reunion, Flavour Fragr. J., Vol.8, 257-260. |
| Aloysia citrodora     | Plant               | 1.0     | 7.0      | -0.4765216242332876  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| Alpinia galanga       | Rhizome             | 5.0     | 555.0    | 0.2020305089104413   | --  |
| Alpinia galanga       | Rhizome Essent. Oil |         | 11600.0  | -0.48077129547612496 | --  |
| Alpinia galanga       | Leaf                |         | 900.0    | -0.16611243060616598 | --  |
| Alpinia galanga       | Leaf Essent. Oil    |         | 11600.0  | -0.6893411812730241  | --  |
| Amomum compactum      | Seed                |         | 960.0    | -0.3992830381083963  | Duke, J. A. and duCellier, J. L. 1993. CRC Handbook of Alternative Cash Crops. CRC Press. Boca Raton, FL 33431. 536 pp. US \$312.50.            |
| Amomum xanthioides    | Seed                |         |          |                      | --  |
| Anethum graveolens    | Leaf                | 25.0    | 405.0    | -0.19825008164168667 | --  |
| Anethum graveolens    | Essential Oil       |         |          |                      | --  |
| Anethum graveolens    | Fruit               | 24.0    | 1001.0   | -0.4574419530274206  | --  |
| Anethum graveolens    | Seed Essent. Oil    |         |          |                      | --  |
| Anethum graveolens    | Seed                | 12.0    | 1001.0   | -0.394802482900677   | --  |
| Anethum graveolens    | Shoot Essent. Oil   | 17500.0 | 31700.0  | 1.9801582592954505   | --  |
| Angelica archangelica | Seed                | 170.0   | 1500.0   | -0.34027084756770226 | --  |
| Angelica archangelica | Seed Essent. Oil    |         | 149000.0 | 0.28611774259215744  | --  |
| Angelica archangelica | Root                | 35.0    | 5890.0   | 2.1989183610646146   | --  |
| Angelica archangelica | Root Essent. Oil    |         |          |                      | --  |
| Angelica sinensis     | Root                |         |          |                      | Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.   |
| Angelica archangelica | Fruit               |         |          |                      | --  |
| Aniba rosaeodora      | Essential Oil       |         |          |                      | --  |
| Annona squamosa       | Plant               |         |          |                      | --  |

| Plant                     | Part              | Low PPM | High PPM | StdDev               | Reference  |
|---------------------------|-------------------|---------|----------|----------------------|--|
| Apium graveolens          | Root Essent. Oil  |         | 179000.0 | 0.7700366703490429   | --   |
| Apium graveolens          | Stem Essent. Oil  |         | 14000.0  | -1.0                 | --   |
| Apium graveolens          | Leaf Essent. Oil  |         | 2000.0   | -0.7421534872468563  | --   |
| Apium graveolens          | Seed              |         | 300.0    | -0.47140904876924467 | --   |
| Apium graveolens          | Seed Essent. Oil  | 10000.0 | 10500.0  | -0.6694735069151678  | --   |
| Apium graveolens          | Fruit Essent. Oil |         | 10000.0  | -0.7166152772658864  | --   |
| Apium graveolens          | Et                | 12000.0 | 14000.0  | -1.0                 | --   |
| Aralia cordata            | Root              |         | 475.0    | -0.5516344052012409  | --   |
| Artemisia dracunculus     | Shoot             | 100.0   | 1000.0   | -0.04771656404793942 | --   |
| Artemisia annua           | Shoot             | 12.0    | 7840.0   | 0.6344499235339521   | --   |
| Artemisia dracunculus     | Essential Oil     |         | 10000.0  | -0.47207505752571344 | --   |
| Artemisia vulgaris        | Plant             |         |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Artemisia capillaris      | Essential Oil     |         |          |                      | --   |
| Artemisia dracunculus     | Root Essent. Oil  |         |          |                      | --   |
| Artemisia salsoloides     | Shoot             |         | 3300.0   | 0.18166690399860314  | V. Kaul, P. Weyerstahl, H. Wahlberg, H. Marschall, (1992); Volatile constituents of the essential oil and the absolute of Artemisia salsoloides Willd. from Ladakh, Flavour and Fragrance journal, Vol.7, 299-305. |
| Artemisia herba-alba      | Plant             |         |          |                      | --   |
| Artemisia annua           | Leaf              | 1345.0  | 3760.0   | 0.019571775376842463 | --   |
| Artemisia dracunculus     | Leaf Essent. Oil  |         |          |                      | --   |
| Asiasarum heterotropoides | Root              |         |          |                      | --   |
| Ballota nigra             | Plant             |         | 3.0      | -0.47935237569528083 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Barosma betulina          | Leaf              |         |          |                      | --   |

| Plant                | Part                | Low PPM | High PPM | StdDev               | Reference  |
|----------------------|---------------------|---------|----------|----------------------|--|
| Boswellia sacra      | Essential Oil       |         | 410000.0 | 3.047713203652598    | Wang, W., Zhu, Y. X., Liu, L. Z., Ling, D. K., Qin, X. L., Tian, J. G. 1993. Analysis of the Chemical Constituents of Essential Oil of <i>Boswellia carterii</i> Birdwood from Somali. <i>Yaowu Fenxi Zazhi</i> 13 3: 170-173. |
| Boswellia serrata    | Essential Oil       |         |          |                      | --   |
| Boswellia sacra      | Resin Essent. Oil   |         | 35000.0  |                      | Abdel Wahab, S. M., Aboutabl, E. A., El-Zalabani, S. M., Fouad, H. A., De Pooter, H. L., El-Fallaha, B. 1987. The Essential Oil of Olibanum. <i>Plant Med.</i> 53 (4): 382-384.  |
| Boswellia sacra      | Resin, Exudate, Sap | 1050.0  | 71600.0  | -1.0059071766104755  | --   |
| Boswellia serrata    | Resin, Exudate, Sap |         | 9920.0   | -1.1654001321985943  | Sabinsa: A series of well documented proprietary PR booklets, e.g. Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp.              |
| Calamintha nepeta    | Shoot               |         | 13.0     | -0.14615199142269486 | Kirimer, N., Baser, K.H.C., Ozek, T. and Kurkcuoglu, M. 1992. Composition of the Essential Oil of <i>Calamintha nepeta</i> subsp. <i>glandulosa</i> . <i>J. Ess. Oil Res.</i> 4:189-190  |
| Calamintha nepeta    | Plant               |         | 40.0     | -0.45316792467184336 | J. Ethnopharmacology, 39: 167.   |
| Calamintha nepeta    | Leaf                |         | 90.0     | -0.21870131411883623 | Akgul, A., De Pooter, H.L., and De Buyck, L.F. 1991. The Essential Oils of <i>Calamintha nepeta</i> subsp. <i>glandulosa</i> and <i>Ziziphora clinopodioides</i> from Turkey. <i>J. Ess. Oil Res.</i> , 3: 7-10.               |
| Callicarpa americana | Leaf                |         | 28.0     | -0.2227266360667196  | --   |
| Camellia sinensis    | Leaf                |         |          |                      | --   |
| Canarium indicum     | Essential Oil       | 400.0   | 1000.0   | -0.5512702934022254  | --   |
| Capsicum annum       | Fruit               |         |          |                      | --   |
| Carum carvi          | Seed                | 4.0     | 540.0    | -0.4451814085289362  | --   |
| Carum carvi          | Fruit               | 42.0    | 540.0    | -0.577800039343025   | --   |
| Carum carvi          | Plant               |         | 20.0     | -0.46732168198180957 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |

| Plant                      | Part             | Low PPM | High PPM | StdDev               | Reference  |
|----------------------------|------------------|---------|----------|----------------------|--|
| Centella asiatica          | Essential Oil    |         | 2000.0   | -0.5424708227492797  | Jim Duke's personal files.   |
| Centella asiatica          | Plant            |         |          |                      | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp. |
| Centella asiatica          | Shoot            |         |          |                      | Jim Duke's personal files.   |
| Chamaemelum nobile         | Plant            |         |          |                      | --   |
| Chenopodium ambrosioides   | Plant            | 440.0   | 4800.0   | 2.9154263151001154   | --   |
| Chrysanthemum x morifolium | Plant            | 3.0     | 14.0     | -0.4715678091747994  | Wealth of India.   |
| Chrysanthemum parthenium   | Shoot            |         | 15.0     | -0.14595252753743698 | Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. <i>The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip.</i> Flavor and Fragrance Journal 11(6): 367-71.    |
| Chrysanthemum balsamita    | Plant            |         |          |                      | --   |
| Cinnamomum verum           | Bark             | 20.0    | 236.0    | 1.0                  | --   |
| Cinnamomum verum           | Root Bark        |         |          |                      | --   |
| Cinnamomum camphora        | Plant            |         |          |                      | --   |
| Cinnamomum verum           | Leaf             |         |          |                      | Lawrence, B.M., <i>Essential Oils 1976-1977</i> , <i>Essential Oils 1978</i> , <i>Essential Oils 1979-1980</i> .   |
| Cinnamomum camphora        | Leaf             | 140.0   | 280.0    | -0.206365650085      | --   |
| Cinnamomum verum           | Stem Bark        |         |          |                      | --   |
| Cinnamomum verum           | Leaf Essent. Oil |         | 2000.0   | -0.7421534872468563  | --   |
| Cinnamomum aromaticum      | Plant            |         |          |                      | --   |
| Cinnamomum aromaticum      | Bark             |         |          |                      | Wealth of India.   |
| Cinnamomum verum           | Bark Essent. Oil |         | 2000.0   |                      | --   |
| Cistus ladaniferus         | Leaf             | 40.0    | 31500.0  | 1.8205787243169311   | --   |
| Citrus aurantium           | Leaf             |         | 1.0      | -0.22447959885047528 | --   |
| Citrus limon               | Petiole          |         | 90.0     |                      | --   |
| Citrus sinensis            | Fruit            | 35.0    | 40.0     | -0.7083402631126611  | --   |
| Citrus limon               | Leaf Essent. Oil | 500.0   | 2000.0   | -0.7421534872468563  | Jim Duke's personal files.   |

| Plant                  | Part                 | Low PPM | High PPM | StdDev               | Reference   |
|------------------------|----------------------|---------|----------|----------------------|---|
| Citrus mitis           | Fruit Juice          |         | 5.6      | 0.9999999999999999   | --  |
| Citrus aurantiifolia   | Fruit                | 80.0    | 240.0    | -0.6561241736048067  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| Citrus paradisi        | Leaf                 |         | 55.0     | -0.22097367328296394 | --  |
| Citrus sinensis        | Fruit Juice          |         | 0.22     | -0.9999999999999999  | --  |
| Citrus paradisi        | Fruit                |         |          |                      | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.  |
| Citrus limon           | Fruit Essent. Oil    |         | 7000.0   | -0.7563238037559155  | Jim Duke's personal files.  |
| Citrus reticulata      | Fruit                | 50.0    | 55.0     | -0.7044240563995721  | --  |
| Citrus limon           | Pericarp Essent. Oil | 5000.0  | 14000.0  |                      | Jim Duke's personal files.  |
| Citrus paradisi        | Pericarp             | 12.0    | 47.0     |                      | --  |
| Citrus aurantium       | Plant                |         |          |                      | --  |
| Citrus sinensis        | Plant                |         |          |                      | --  |
| Citrus limon           | Pericarp             |         |          |                      | Jim Duke's personal files.  |
| Citrus limon           | Essential Oil        | 40.0    | 500.0    | -0.5556700287286983  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| Cleistocalyx fullageri | Leaf                 |         | 59488.0  | 3.6376869610485536   | --  |
| Cleonia lusitanica     | Leaf                 | 90.0    | 170.0    | -0.2135073503151157  | Perez-Alonso, M., Velasco-Negueruela, A., and Lopez-Saez, A. 1991. The Essential Oil of Cleonia lusitanica. J. Ess. Oil Res., 3: 441-442. |
| Coleus barbatus        | Root Essent. Oil     |         | 77000.0  | -0.3740819075912684  | Jim Duke's personal files.  |
| Coleus barbatus        | Stem Essent. Oil     |         | 66800.0  | 1.0                  | Jim Duke's personal files.  |
| Coleus barbatus        | Leaf Essent. Oil     |         | 66800.0  | -0.3856704219234889  | Jim Duke's personal files.  |
| Collinsonia canadensis | Plant                |         |          |                      | --  |
| Commiphora myrrha      | Resin, Exudate, Sap  |         |          |                      | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.  |
| Coriandrum sativum     | Seed Essent. Oil     | 11400.0 | 52980.0  | -0.3763795265608634  | --  |
| Coriandrum sativum     | Fruit                | 819.0   | 13780.0  | 2.8789050860769403   | --  |
| Coriandrum sativum     | Essential Oil        |         |          |                      | --  |

| Plant                           | Part                | Low PPM | High PPM | StdDev               | Reference  |
|---------------------------------|---------------------|---------|----------|----------------------|--|
| <i>Coridotherymus capitatus</i> | Shoot               |         | 44.0     | -0.14306030120119798 | Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. Z. Lebensm Unters Forsch 197: 20-23. |
| <i>Crocus sativus</i>           | Silk Stigma Style   |         |          |                      | --   |
| <i>Croton eluteria</i>          | Bark                |         |          |                      | --   |
| <i>Croton lechleri</i>          | Plant               |         |          |                      | Taylor, Leslie. 2005. The Healing Power of Rainforest Herbs. SquareOne Publisher, Garden City Park, NY. 519 pp.  |
| <i>Cuminum cyminum</i>          | Seed                | 9.0     | 330.0    | -0.4681305937392061  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Cuminum cyminum</i>          | Seed Essent. Oil    |         | 3000.0   | -0.7212203254805465  | --   |
| <i>Cuminum cyminum</i>          | Fruit               | 9.0     | 330.0    | -0.6326269333262723  | --   |
| <i>Cunila origanoides</i>       | Shoot               |         | 812.0    | -0.06646616926217855 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Curcuma longa</i>            | Tuber               |         |          |                      | --   |
| <i>Curcuma longa</i>            | Leaf                | 60.0    | 1440.0   | -0.1310531749310525  | --   |
| <i>Curcuma zedoaria</i>         | Rhizome             |         |          |                      | Chemical Constituents of Oriental Herbs (3 diff. books)  |
| <i>Curcuma longa</i>            | Rhizome             |         |          |                      | --   |
| <i>Curcuma longa</i>            | Rhizome Essent. Oil |         | 5300.0   | -0.9114147781537915  | --   |
| <i>Curcuma longa</i>            | Essential Oil       |         | 5300.0   | -0.5134325695945586  | --   |
| <i>Cymbopogon citratus</i>      | Plant               |         |          |                      | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Cymbopogon winterianus</i>   | Plant               |         |          |                      | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Cymbopogon nardus</i>        | Plant               | 78.0    | 312.0    | -0.2606768252563028  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Daucus carota</i>            | Root                |         | 48.0     | -0.7685293324764985  | --   |
| <i>Daucus carota</i>            | Shoot               |         | 12.0     | -0.1462517233653238  | --   |
| <i>Daucus carota</i>            | Seed                | 12.0    | 1300.0   | -0.362127214434626   | --   |

| Plant                           | Part              | Low PPM | High PPM | StdDev               | Reference  |
|---------------------------------|-------------------|---------|----------|----------------------|--|
| <i>Dictamnus albus</i>          | Shoot             |         | 0.7      | -0.14737869431703063 | Baser, K.H.C., Kosar, M.Malyer, H. & Ozek, T. 1994. The Essential Oil Composition of <i>Dictamnus albus</i> from Turkey. <i>Planta Med.</i> 60:481-2   |
| <i>Dictamnus albus</i>          | Shoot             |         | 0.7      | -0.14737869431703063 | Baser, K.H.C., Kosar, M.Malyer, H. & Ozek, T. 1994. The Essential Oil Composition of <i>Dictamnus albus</i> from Turkey. <i>Planta Med.</i> 60:481-2   |
| <i>Dictamnus albus</i>          | Shoot             |         | 1.0      | -0.14734877473424204 | Baser, K.H.C., Kosar, M.Malyer, H. & Ozek, T. 1994. The Essential Oil Composition of <i>Dictamnus albus</i> from Turkey. <i>Planta Med.</i> 60:481-2   |
| <i>Dracocephalum thymiflora</i> | Plant             |         | 2.0      | -0.4800600635607791  | --   |
| <i>Echinacea spp</i>            | Fruit             |         |          |                      | Economic & Medicinal Plant Research, 5: 253.   |
| <i>Elettaria cardamomum</i>     | Seed Essent. Oil  | 6900.0  | 17000.0  | -0.6246262641585064  | --   |
| <i>Elettaria cardamomum</i>     | Fruit Essent. Oil | 12000.0 | 16000.0  | -0.6371982242858282  | --   |
| <i>Elettaria cardamomum</i>     | Fruit             | 217.0   | 3000.0   | 0.06445786160358473  | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.  |
| <i>Elettaria cardamomum</i>     | Root Essent. Oil  |         | 123000.0 | 0.14189313736220527  | --   |
| <i>Elsholtzia pilosa</i>        | Shoot             |         | 7.6      | -0.14669054391289105 | --   |
| <i>Elsholtzia blanda</i>        | Shoot             |         | 0.4      | -0.14740861389981944 | Bestman, H.J., Rauscher, J., Vostrowsky O., Pant, A.K., Dev, V., Perihar, R. and Mathela, C.S. 1992. Constituents of the Essential Oil of <i>Elsholtzia blanda</i> Benth. (Labiatae). <i>J. Ess. Oils Res.</i> 4: 121-124  |
| <i>Elsholtzia polystachya</i>   | Leaf              |         | 1.2      | -0.22446661394096595 | Mathela,C.S., Melkani,A.B., Bisht,J.C., Pant,A.K., Bestmann,H.J., Erler,J., Kobold,U., Rauscher,J. and Vostrowsky,O. 1992. Chemical Varieties of Essential Oils from <i>Elsholtzia polystachya</i> from Two Different Locations in India. <i>Planta Medica</i> 58: 376-379.      |
| <i>Elsholtzia cristata</i>      | Shoot             |         | 0.1      | -0.14743853348260805 | Kobold, U., Vostrowsky, O., Bestmann, H.J., Bisht, J.C., Pant, A.K., Melkani, A.B. and Mathela, C.S. 1987. Terpenoids from <i>Elsholtzia</i> Species; II. Constituents of Essential Oil from a New Chemotype of <i>Elsholtzia cristata</i> . <i>Planta Medica</i> 1987: 268-271. |

| Plant                   | Part             | Low PPM | High PPM | StdDev                | Reference  |
|-------------------------|------------------|---------|----------|-----------------------|--|
| Elsholtzia polystachya  | Leaf             |         | 1.2      | -0.22446661394096595  | Mathela,C.S., Melkani,A.B., Bisht,J.C., Pant,A.K., Bestmann,H.J., Erler,J., Kobold,U., Rauscher,J. and Vostrowsky,O. 1992. Chemical Varieties of Essential Oils from Elsholtzia polystachya from Two Different Locations in India. <i>Planta Medica</i> 58: 376-379. |
| Eryngium foetidum       | Plant            | 5.0     | 25.0     | -0.463783242654318    | --   |
| Eucalyptus globulus     | Leaf Essent. Oil | 5000.0  | 260000.0 | 0.6771772357998844    | --   |
| Eucalyptus citriodora   | Essential Oil    |         |          |                       | --   |
| Eucalyptus leucoxylon   | Leaf             |         | 720.0    | -0.17779884916453714  | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364       |
| Eucalyptus melanophloia | Leaf             |         | 6.0      | -0.22415497611274277  | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364       |
| Eucalyptus stoatei      | Leaf             |         | 3290.0   | -0.010942761970015568 | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Sympyomyrtus,Section Dumaria, Series Incrassatae.Flavour and Fragrance J.9(3):113-7      |
| Eucalyptus odorata      | Leaf             |         | 190.0    | -0.21220885936418557  | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364       |

| Plant                   | Part             | Low PPM | High PPM | StdDev               | Reference  |
|-------------------------|------------------|---------|----------|----------------------|--|
| Eucalyptus saligna      | Shoot            |         | 370.0    | -0.11054768790416629 | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.  |
| Eucalyptus intertexta   | Leaf             |         | 1920.0   | -0.09988939210872941 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus diversicolor | Shoot            |         | 710.0    | -0.07663882741032957 | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.  |
| Eucalyptus paniculata   | Shoot            |         | 355.0    | -0.11204366704360026 | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.  |
| Eucalyptus sparsa       | Leaf             |         | 2495.0   | -0.06255777726948819 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus citriodora   | Leaf             | 5.0     | 380.0    | -0.19987319533034933 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Eucalyptus moluccana    | Shoot            |         | 935.0    | -0.05419914031881997 | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.  |
| Eucalyptus citriodora   | Shoot            |         |          |                      | --   |
| Eucalyptus citriodora   | Leaf Essent. Oil | 2900.0  | 6000.0   | -0.7201483597577595  | --   |

| Plant                   | Part          | Low PPM | High PPM | StdDev               | Reference   |
|-------------------------|---------------|---------|----------|----------------------|---|
| Eucalyptus bridgesiana  | Leaf          |         | 255.0    | -0.20798876377366265 | Singh, A. K., Gupta, K. C., & Brophy, J. J. 1991. Volatile Constituents of the Essential Oil of Eucalyptus bridgesiana Growing in India. Journal of Essential Oil Res. 3: 449-450.  |
| Eucalyptus maculata     | Shoot         |         | 7330.0   | 0.5835866327931971   | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.   |
| Eucalyptus nova-anglica | Leaf          | 0.1     | 1185.0   | -0.14760893455541166 | Brophy, J. L., Lassak, E. V., & Boland, D. J. 1992. The Leaf Essential Oils of Eucalyptus nova-anglica. Deane & Maiden. Journal of Essential Oil Res. 4: 29-32.   |
| Eucalyptus forrestiana  | Leaf          |         | 10110.0  | 0.43184265229715846  | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Sympyomyrtus,Section Dumaria, Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| Eucalyptus bosistoana   | Shoot         |         | 1220.0   | -0.02577553666957448 | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.   |
| Eucalyptus globulus     | Essential Oil |         | 52000.0  | -0.10249729010199074 | --  |
| Eucalyptus tetraptera   | Leaf          |         | 4355.0   | 0.0582018811670138   | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Sympyomyrtus,Section Dumaria, Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| Eucalyptus viridis      | Leaf          |         | 55.0     | -0.22097367328296394 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subjenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364  |

| Plant                  | Part  | Low PPM | High PPM | StdDev               | Reference   |
|------------------------|-------|---------|----------|----------------------|---|
| Eucalyptus ochrophloia | Leaf  |         | 21.0     | -0.22318110789954515 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364  |
| Eucalyptus sideroxylon | Shoot |         | 300.0    | -0.1175289238881915  | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.   |
| Eucalyptus porosa      | Leaf  |         | 2100.0   | -0.08820297355035825 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364  |
| Eucalyptus erythrandra | Leaf  |         | 4970.0   | 0.09813047790811527  | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Sympyomyrtus,Section Dumaria, Series Incrastatae.Flavour and Fragrance J.9(3):113-7 |
| Eucalyptus punctata    | Shoot |         | 3075.0   | 0.15922721690709354  | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.   |
| Eucalyptus cuprea      | Leaf  |         | 1595.0   | -0.120989870061344   | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364  |
| Eucalyptus dealbata    | Shoot |         | 235.0    | -0.12401150015907206 | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.   |

| Plant                  | Part  | Low PPM | High PPM | StdDev                | Reference  |
|------------------------|-------|---------|----------|-----------------------|--|
| Eucalyptus oviformis   | Shoot |         | 315.0    | -0.11603294474875753  | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.  |
| Eucalyptus populnea    | Leaf  |         | 71.0     | -0.21993488052221985  | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364   |
| Eucalyptus melliodora  | Shoot |         | 3000.0   | 0.15174732120992368   | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.  |
| Eucalyptus blakelyi    | Shoot |         | 0.1      | -0.14743853348260805  | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.  |
| Eucalyptus ceratocorys | Leaf  |         | 3185.0   | -0.017759839462398744 | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Sympyomyrtus,Section Dumarria, Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| Eucalyptus angulosa    | Leaf  |         | 835.0    | -0.1703325261966889   | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Sympyomyrtus,Section Dumarria, Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| Eucalyptus brassiana   | Leaf  |         | 825.0    | -0.17098177167215398  | Singh, A. K., Gupta, K. C., & Brophy, J. J. 1991. Chemical Constituents of the Leaf Essential Oil of Eucalyptus brassiana S. T. Blake. Journal of Essential Oil Res. 3: 45-7.  |

| Plant                   | Part              | Low PPM | High PPM | StdDev                | Reference   |
|-------------------------|-------------------|---------|----------|-----------------------|---|
| Eucalyptus incrassata   | Leaf              |         | 5295.0   | 0.11923095586072986   | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Sympyomyrtus,Section Dumaria, Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| Eucalyptus globulus     | Fruit Essent. Oil |         | 40900.0  | -0.3076174544185865   | --  |
| Eucalyptus grandis      | Leaf Essent. Oil  |         | 689000.0 | 3.0372271590055115    | --  |
| Eucalyptus fasciculosa  | Leaf              |         | 90.0     | -0.21870131411883623  | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364  |
| Eucalyptus tereticornis | Shoot             |         | 585.0    | -0.08910532023894602  | Zriria, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.  |
| Eucalyptus desquamata   | Leaf              |         | 3000.0   | -0.029770880758502438 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364  |
| Eucalyptus behriana     | Leaf              |         | 65.0     | -0.22032442780749886  | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Sympyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364  |
| Eucalyptus siderophloia | Shoot             |         | 150.0    | -0.13248871528253123  | Zriria, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.  |

| Plant                            | Part  | Low PPM | High PPM | StdDev                | Reference  |
|----------------------------------|-------|---------|----------|-----------------------|--|
| <i>Eucalyptus lansdowneana</i>   | Leaf  |         | 420.0    | -0.19727621342848908  | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364         |
| <i>Eucalyptus dolichorhyncha</i> | Leaf  |         | 1425.0   | -0.1320270431442501   | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> .Part I.Subgenus <i>Sympyomyrtus</i> ,Section <i>Dumaria</i> ,Series <i>Incrassatae</i> .Flavour and Fragrance J.9(3):113-7 |
| <i>Eucalyptus polyanthemos</i>   | Shoot |         | 135.0    | -0.1339846944219652   | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven <i>Eucalyptus</i> Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.   |
| <i>Eucalyptus largisparsa</i>    | Leaf  |         | 2495.0   | -0.06255777726948819  | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Sympyomyrtus</i> , Section <i>Adnataria</i> . Flavour and Fragrance J. 10(6):359-364         |
| <i>Eucalyptus globulus</i>       | Leaf  | 1250.0  | 8750.0   | 0.34354526763390963   | --   |
| <i>Eucalyptus cladocalyx</i>     | Shoot |         | 260.0    | -0.12151820159334877  | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven <i>Eucalyptus</i> Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.   |
| <i>Eucalyptus occidentalis</i>   | Shoot |         | 1340.0   | -0.013807703554102694 | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven <i>Eucalyptus</i> Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.   |
| <i>Eucalyptus maidenii</i>       | Shoot |         | 3000.0   | 0.15174732120992368   | Zrira, S. S., Benjlali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven <i>Eucalyptus</i> Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.   |

| Plant                    | Part             | Low PPM | High PPM | StdDev               | Reference  |
|--------------------------|------------------|---------|----------|----------------------|--|
| Eucalyptus astringens    | Shoot            |         | 4325.0   | 0.28389214519325795  | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |
| Eucalyptus camaldulensis | Shoot            |         | 410.0    | -0.10655841019900904 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |
| Eucalyptus albens        | Shoot            |         | 315.0    | -0.11603294474875753 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |
| Eucalyptus botryoides    | Shoot            |         | 820.0    | -0.06566831372114709 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |
| Eucalyptus globulus      | Shoot            |         | 119000.0 | 11.720652666165982   | --   |
| Ferula gummosa           | Plant            |         |          |                      | --   |
| Ferula assa-foetida      | Gum              |         | 143000.0 |                      | --   |
| Ferula assa-foetida      | Essential Oil    |         |          |                      | --   |
| Ferula assa-foetida      | Seed Essent. Oil |         | 14300.0  | -0.6432551188420427  | --   |
| Ficus carica             | Leaf Essent. Oil |         |          |                      | --   |
| Foeniculum vulgare       | Essential Oil    | 5800.0  | 56000.0  | -0.06729940749020763 | Jim Duke's personal files.   |
| Foeniculum vulgare       | Root Essent. Oil |         | 10000.0  | -1.125610777414806   | Jim Duke's personal files.   |
| Foeniculum vulgare       | Plant            |         | 480.0    | -0.14178526385258663 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Foeniculum vulgare       | Seed Essent. Oil | 4700.0  | 12000.0  | -0.6591241432020921  | Jim Duke's personal files.   |
| Foeniculum vulgare       | Seed             | 200.0   | 8820.0   | 0.4596721797617065   | --   |
| Foeniculum vulgare       | Fruit            | 200.0   | 8820.0   | 1.5839460662821494   | --   |
| Glechoma hederacea       | Plant            | 4.0     | 22.0     | -0.4659063062508129  | --   |
| Gossypium sp             | Plant            |         |          |                      | --   |

| Plant                       | Part              | Low PPM | High PPM | StdDev               | Reference  |
|-----------------------------|-------------------|---------|----------|----------------------|--|
| <i>Hedeoma hispida</i>      | Plant             |         | 18.0     | -0.46873705771280616 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Hedeoma reverchonii</i>  | Plant             |         | 525.0    | -0.10993930990516265 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Hedeoma drummondii</i>   | Plant             | 7.0     | 6780.0   | 4.31664828878677     | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Hedeoma pulegioides</i>  | Pollen Or Spore   |         | 4000.0   |                      | --   |
| <i>Hedeoma pulegioides</i>  | Plant             | 24.0    | 210.0    | -0.3328609875371305  | --   |
| <i>Hedychium flavum</i>     | Shoot             |         | 590.0    | -0.08860666052580135 | --   |
| <i>Helianthus annuus</i>    | Plant             |         |          |                      | Stitt, Paul. Why George should eat broccoli.   |
| <i>Hesperis matronalis</i>  | Flower            |         |          |                      | Nielsen, J. K., Jakobsen, H. B., Friis, P., Hansen, K., Moller, J., Olsen, C. E. 1995. Asynchronous Rhythmus in the Emission of Volatiles from <i>Hesperis matronalis</i> Flowers. <i>Phytochemistry</i> , 38(4): 847-851. |
| <i>Houttuynia cordata</i>   | Essential Oil     |         |          |                      | --   |
| <i>Houttuynia cordata</i>   | Shoot Essent. Oil |         |          |                      | --   |
| <i>Houttuynia cordata</i>   | Plant             |         |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Humulus lupulus</i>      | Essential Oil     |         |          |                      | --   |
| <i>Humulus lupulus</i>      | Fruit             |         |          |                      | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses  |
| <i>Hypericum perforatum</i> | Leaf Essent. Oil  |         |          |                      | --   |
| <i>Hypericum perforatum</i> | Shoot Essent. Oil |         |          |                      | --   |
| <i>Hypericum perforatum</i> | Fruit Essent. Oil |         |          |                      | --   |
| <i>Hypericum perforatum</i> | Plant             | 13.0    | 245.0    | -0.3080919122446896  | --   |
| <i>Hyptis suaveolens</i>    | Plant             |         | 215.0    | -0.32932254820963897 | Recently became Internat. J. Crude Drug Res. 28(1,2,3,4):1990, page 74.  |

| Plant                | Part          | Low PPM | High PPM | StdDev               | Reference   |
|----------------------|---------------|---------|----------|----------------------|---|
| Hyptis suaveolens    | Shoot         |         | 48.0     | -0.14266137343068225 | Mallvarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of <i>Hyptis suaveolens</i> (L.) Poit. J. Ess. Oil Res. 5: 321.                   |
| Hyptis suaveolens    | Shoot         |         | 48.0     | -0.14266137343068225 | Mallvarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of <i>Hyptis suaveolens</i> (L.) Poit. J. Ess. Oil Res. 5: 321.                   |
| Hyssopus officinalis | Shoot         |         | 30.0     | -0.144456548398003   | Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781. |
| Hyssopus officinalis | Leaf          | 0.1     | 1460.0   | -0.12975468398012238 | --  |
| Hyssopus officinalis | Shoot         |         | 40.0     | -0.1434592289717137  | Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781. |
| Hyssopus officinalis | Shoot         |         | 40.0     | -0.1434592289717137  | Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781. |
| Hyssopus officinalis | Shoot         |         | 170.0    | -0.13049407642995262 | Tsankova, E.T., Konatchiev, A.N. and Genova, E.M. 1993. Chemical Composition of the Essential Oils of Two <i>Hyssopus officinalis</i> cultivars. J. Ess. Oil Res. 5: 609-611.           |
| Hyssopus officinalis | Essential Oil |         |          |                      | --  |
| Hyssopus officinalis | Shoot         |         | 20.0     | -0.14545386782429234 | Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781. |
| Hyssopus officinalis | Shoot         |         |          |                      | Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) J. Agric. Food Chem. 42: 776-781. |

| Plant                | Part              | Low PPM | High PPM | StdDev               | Reference  |
|----------------------|-------------------|---------|----------|----------------------|--|
| Hyssopus officinalis | Shoot             |         | 70.0     | -0.14046727069284576 | Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) <i>J. Agric. Food Chem.</i> 42: 776-781. |
| Hyssopus officinalis | Shoot             |         | 80.0     | -0.13946995126655645 | Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) <i>J. Agric. Food Chem.</i> 42: 776-781. |
| Hyssopus officinalis | Shoot             |         | 40.0     | -0.1434592289717137  | Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) <i>J. Agric. Food Chem.</i> 42: 776-781. |
| Hyssopus officinalis | Shoot             |         | 60.0     | -0.14146459011913506 | Kerrola, K., Galambosi, B. and Kallio, H. 1994. Volatile Components and Odor Intensity of Four Phenotypes of Hyssop ( <i>Hyssopus officinalis</i> L.) <i>J. Agric. Food Chem.</i> 42: 776-781. |
| Hyssopus officinalis | Shoot             |         | 170.0    | -0.13049407642995262 | Tsankova, E.T., Konatchiev, A.N. and Genova, E.M. 1993. Chemical Composition of the Essential Oils of Two <i>Hyssopus officinalis</i> cultivars. <i>J. Ess. Oil Res.</i> 5: 609-611.           |
| Illicium verum       | Fruit             | 50.0    | 1310.0   | -0.37676809473778544 | Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.   |
| Isanthus brachiatus  | Plant             |         | 684.0    | 0.002583060709068898 | Lawrence, B.M., <i>Essential Oils 1976-1977</i> , <i>Essential Oils 1978</i> , <i>Essential Oils 1979-1980</i> .   |
| Juglans nigra        | Essential Oil     |         | 17000.0  | -0.410478762955093   | --   |
| Juglans nigra        | Fruit             |         |          |                      | --   |
| Juniperus communis   | Fruit             | 530.0   | 9200.0   | 1.683156636347073    | --   |
| Juniperus communis   | Leaf Essent. Oil  |         |          |                      | --   |
| Juniperus virginiana | Leaf              |         |          |                      | --   |
| Juniperus communis   | Essential Oil     |         | 336000.0 | 2.3965523753346103   | --   |
| Juniperus sabina     | Plant             |         |          |                      | --   |
| Juniperus communis   | Fruit Essent. Oil |         |          |                      | --   |

| Plant                       | Part              | Low PPM  | High PPM | StdDev               | Reference  |
|-----------------------------|-------------------|----------|----------|----------------------|--|
| Lantana camara              | Leaf              |          |          |                      | --   |
| Lantana camara              | Shoot             |          | 35.0     | -0.14395788868485837 | --   |
| Larrea tridentata           | Essential Oil     |          |          |                      | --   |
| Laurus nobilis              | Wood              |          | 0.0      |                      | --   |
| Laurus nobilis              | Leaf Essent. Oil  | 1300.0   | 76600.0  | -0.3317578595752018  | --   |
| Laurus nobilis              | Leaf              |          | 125.0    | -0.21642895495470849 | --   |
| Laurus nobilis              | Bark              |          | 27.0     | -1.0                 | --   |
| Laurus nobilis              | Flower            |          | 0.0      | -0.8461946767360643  | --   |
| Laurus nobilis              | Fruit Essent. Oil |          | 93000.0  | 0.38198728895825224  | --   |
| Lavandula angustifolia      | Plant             |          |          |                      | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Lavandula x hybrida         | Shoot             | 300.0    | 455.0    | -0.10207047278070712 | Tucker, A.O., Maciarello, M.J., Angell, S., Espaillat, J.R., and French, E.C. 1993. The Essential Oil of Lavandula x hybrida Balb. ex Ging., a Distinct Hybrid from L. x heterophylla Poir. (Labiatae). J. Ess. Oil Res. 5: 443-445. |
| Lavandula x intermedia      | Plant             | 28.0     | 120.0    | -0.39655289543197847 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Lavandula latifolia         | Plant             | 90.0     | 748.0    | 0.04787508410096078  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Leonotis leonurus           | Se                |          | 65.0     |                      | Pedro, L.G., Barroso, J.G., Marques, N.T., Ascensao, L., Pais, M.S.S. and Scheffer, J.J.C. 1991. Composition of the Essential Oil from Sepals of Leonotis leonurus R. Br. J. Ess. Oil Res. 3: 451-3                                  |
| Leonurus cardiaca           | Plant             | 6.0      | 28.0     | -0.4616601790578231  | --   |
| Lepechinia schiediana       | Plant             |          | 200.0    | -0.33993786619211364 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Lepechinia calycina         | Plant             |          | 325.0    | -0.2514768830048248  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Leptospermum polygalifolium | Leaf              | 116875.0 | 137500.0 | 8.702580764246616    | --   |
| Levisticum officinale       | Root              | 20.0     | 200.0    | -0.691320833774299   | --   |

| Plant                          | Part          | Low PPM | High PPM | StdDev                | Reference  |
|--------------------------------|---------------|---------|----------|-----------------------|--|
| <i>Lindera benzoin</i>         | Twig          | 35.0    | 43.0     |                       | --   |
| <i>Lindera benzoin</i>         | Leaf          |         | 2.0      | -0.22441467430292877  | --   |
| <i>Lindera benzoin</i>         | Fruit         | 125.0   | 190.0    | -0.6691781959817703   | --   |
| <i>Lippia alba</i>             | Plant         |         |          |                       | Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp.  |
| <i>Litsea glaucescens</i>      | Shoot         | 90.0    | 140.0    | -0.13348603470882056  | Tucker, et al, EB46(1):21-24.1992  |
| <i>Lycopersicon esculentum</i> | Fruit         |         |          |                       | --   |
| <i>Lycopus uniflorus</i>       | Plant         | 8.0     | 22.0     | -0.4659063062508129   | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Lycopus virginicus</i>      | Plant         | 266.0   | 666.0    | -0.010155320869900694 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Magnolia officinalis</i>    | Plant         |         |          |                       | --   |
| <i>Magnolia denudata</i>       | Twig          |         |          |                       | --   |
| <i>Magnolia denudata</i>       | Bulb          |         |          |                       | --   |
| <i>Magnolia kobus</i>          | Flower        |         |          |                       | --   |
| <i>Magnolia denudata</i>       | Leaf          |         |          |                       | --   |
| <i>Magnolia denudata</i>       | Bark          |         |          |                       | --   |
| <i>Magnolia fargesii</i>       | Flower        |         |          |                       | --   |
| <i>Magnolia denudata</i>       | Flower        |         |          |                       | --   |
| <i>Mangifera indica</i>        | Flower        |         |          |                       | --   |
| <i>Marrubium vulgare</i>       | Essential Oil |         |          |                       | --   |
| <i>Marrubium vulgare</i>       | Plant         |         |          |                       | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| <i>Melaleuca cajuputi</i>      | Leaf          |         | 250.0    | -0.2083133865113952   | --   |
| <i>Melaleuca alternifolia</i>  | Essential Oil | 23000.0 | 24000.0  | -0.34888246838447257  | --   |
| <i>Melaleuca viridiflora</i>   | Leaf          |         |          |                       | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |

| Plant                  | Part                | Low PPM | High PPM | StdDev               | Reference  |
|------------------------|---------------------|---------|----------|----------------------|--|
| Melaleuca alternifolia | Resin, Exudate, Sap |         |          |                      | --   |
| Melaleuca alternifolia | Leaf Essent. Oil    |         | 25000.0  | -0.61562400418455    | --   |
| Melaleuca linariifolia | Leaf                | 150.0   | 400.0    | -0.1985747043794192  | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| Melaleuca leucadendra  | Leaf                |         |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Melaleuca alternifolia | Root Essent. Oil    |         | 9800.0   | -1.1278541471754733  | --   |
| Melaleuca alternifolia | Leaf                | 200.0   | 700.0    | -0.17909734011546727 | --   |
| Melaleuca leucadendra  | Plant               |         |          |                      | --   |
| Meleleuca howeana      | Leaf                | 102.0   | 221.0    | -0.21019619839024387 | --   |
| Mentha pulegium        | Plant               | 20.0    | 520.0    | -0.11347774923265422 | --   |
| Mentha aquatica        | Shoot               |         | 8.0      | -0.14665065113583953 | Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419. |
| Mentha aquatica        | Shoot               |         | 9.0      | -0.1465509191932106  | Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419. |
| Mentha spicata         | Essential Oil       | 2000.0  | 10000.0  | -0.47207505752571344 | --   |
| Mentha pulegium        | Essential Oil       | 2000.0  | 26000.0  | -0.331283527078581   | --   |
| Mentha x piperita      | Leaf                | 5.0     | 230.0    | -0.20961187746232532 | --   |
| Mentha longifolia      | Shoot               | 7.0     | 1065.0   | -0.04123398777705887 | --   |
| Mentha aquatica        | Shoot               |         | 13.0     | -0.14615199142269486 | Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419. |

| Plant  | Part              | Low PPM | High PPM | StdDev               | Reference  |
|--|-------------------|---------|----------|----------------------|--|
| <i>Mentha aquatica</i>                         | Shoot             |         | 8.0      | -0.14665065113583953 | Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.   |
| <i>Mentha spicata</i>                          | Shoot             |         |          |                      | --   |
| <i>Mentha pulegium</i>                         | Shoot Essent. Oil |         |          |                      | --   |
| <i>Mentha aquatica</i>                         | Leaf              | 18.0    | 68.0     | -0.22012965416485936 | --   |
| <i>Mentha spicata</i>                          | Leaf              | 5.0     | 375.0    | -0.20019781806808187 | --   |
| <i>Mentha arvensis</i> var. <i>piperascens</i> | Plant             | 10.0    | 300.0    | -0.26916907964228254 | --   |
| <i>Mentha aquatica</i>                         | Shoot             |         | 14.0     | -0.14605225948006592 | Umemoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Nogeikagaku Kaishi</i> 67(10): 1417-1419.   |
| <i>Mentha pulegium</i>                         | Leaf Essent. Oil  |         | 7000.0   | -0.7146470778854853  | --   |
| <i>Mentha x rotundifolia</i>                   | Leaf              | 4.0     | 430.0    | -0.19662696795302403 | --   |
| <i>Micromeria fruticosa</i>                    | Shoot             |         | 195.0    | -0.1280007778642293  | Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of <i>Micromeria fruticosa</i> (L.) Druce subsp. <i>barbata</i> (Boiss et. Ky.), P.H. Davis. Aromatic Plants of the Holy Land and the Sinai. Part VII. <i>J. Ess. Oil Res</i> 3: 477-479.              |
| <i>Micromeria thymifolia</i>                   | Leaf              |         | 65.0     | -0.22032442780749886 | Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . <i>J. Ess. Oil Res.</i> , 3: 387-393.  |
| <i>Micromeria dalmatica</i>                    | Leaf              |         | 60.0     | -0.2206490505452314  | Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . <i>J. Ess. Oil Res.</i> , 3: 387-393.  |
| <i>Micromeria varia</i>                        | Shoot             |         | 585.0    | -0.08910532023894602 | Pedro, L.G., et al. 1995. Composition of the Essential oil of <i>Micromeria varia</i> Benth. ssp. <i>thymoides</i> (Sol. ex Lowe) Perez var. <i>thymoides</i> , and endemic species of the Madeira Archipelago. <i>flav. &amp; Fragr. J.</i> 10(3): 199-202. |

| Plant                 | Part  | Low PPM | High PPM | StdDev               | Reference   |
|-----------------------|-------|---------|----------|----------------------|---|
| Micromeria fruticosa  | Leaf  | 1.0     | 390.0    | -0.19922394985488429 | Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . <i>J. Ess. Oil Res.</i> , 3: 387-393.   |
| Micromeria teneriffae | Leaf  |         | 2030.0   | -0.0927476918786137  | Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . <i>J. Ess. Oil Res.</i> , 3: 387-393.   |
| Micromeria croatica   | Leaf  |         | 90.0     | -0.21870131411883623 | Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . <i>J. Ess. Oil Res.</i> , 3: 387-393.   |
| Micromeria fruticosa  | Shoot |         | 195.0    | -0.1280007778642293  | Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of <i>Micromeria fruticosa</i> (L.) Druce subsp. <i>barbata</i> (Boiss et. Ky.), P.H. Davis. Aromatic Plants of the Holy Land and the Sinai. Part VII. <i>J. Ess. Oil Res</i> 3: 477-479. |
| Micromeria juliana    | Leaf  |         | 65.0     | -0.22032442780749886 | Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . <i>J. Ess. Oil Res.</i> , 3: 387-393.   |
| Micromeria varia      | Shoot |         | 585.0    | -0.08910532023894602 | --  |
| Micromeria congesta   | Leaf  | 95.0    | 130.0    | -0.21610433221697595 | Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of <i>Micromeria congesta</i> . <i>J. Ess. Oil Res.</i> , 3: 387-393.   |
| Micromeria myrtifolia | Shoot |         | 0.3      | -0.14741858709408237 | Ozek, T., Kirimer, N., and Baser, K.H.C. 1992. Composition of the Essential Oil of <i>Micromeria myrtifolia</i> Boiss. et Hohen. <i>J. Ess. Oil Res.</i> , 4: 79-80.  |
| Minthostachys mollis  | Shoot | 2.0     | 4.0      | -0.14704957890635523 | Alkire, B.H., Tucker, A.O., and Maciarello, M.J. 1994. Tipó ( <i>Minthostachys mollis</i> (Lamiaceae): An Ecuadorian Mint. <i>Econ. Bot.</i> 48(1): 60-64.  |
| Moldavica thymiflora  | Plant |         | 2.0      | -0.4800600635607791  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| Monarda punctata      | Plant | 40.0    | 1974.0   | 0.9155004072018896   | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |

| Plant               | Part             | Low PPM  | High PPM | StdDev               | Reference   |
|---------------------|------------------|----------|----------|----------------------|---|
| Monarda citriodora  | Leaf             |          | 65.0     | -0.22032442780749886 | Collins, J.E., Bishop, C.D., Deans, S.G. and Svoboda, K.P. 1994. Composition of the Essential Oil from the Leaves and Flowers of <i>Monarda citriodora</i> var. <i>citriodora</i> grown in the United Kingdom. <i>J. Ess. Oil Res.</i> 6: 27-9. |
| Monarda didyma      | Plant            | 5.0      | 350.0    | -0.23378468636736702 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| Monarda citriodora  | Plant            | 25.0     | 214.0    | -0.33003023607513726 | --  |
| Monarda clinopodia  | Plant            |          | 65.0     | -0.43547572803438556 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| Monarda media       | Plant            | 137.0    | 434.0    | -0.17433890566550894 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| Monarda citriodora  | Flower           |          | 115.0    | 0.11517907784332812  | Collins, J.E., Bishop, C.D., Deans, S.G. and Svoboda, K.P. 1994. Composition of the Essential Oil from the Leaves and Flowers of <i>Monarda citriodora</i> var. <i>citriodora</i> grown in the United Kingdom. <i>J. Ess. Oil Res.</i> 6: 27-9. |
| Monarda lindheimeri | Plant            |          | 211.0    | -0.3321532996716322  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| Monarda didyma      | Leaf             | 50.0     | 90.0     | -0.21870131411883623 | --  |
| Monarda russeliana  | Plant            |          | 14.0     | -0.4715678091747994  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| Monarda fistulosa   | Plant            | 3.0      | 1823.0   | 0.8086395395116448   | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| Monarda didyma      | Flower           |          | 18.0     | -0.695718784714942   | Flavour and Fragrance Journal, 6: 80.   |
| Murraya koenigii    | Leaf             | 0.0      | 9880.0   | 0.41691000636146197  | --  |
| Myrciaria dubia     | Fruit            |          |          |                      | --  |
| Myrica cerifera     | Leaf             |          |          |                      | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses   |
| Myristica fragrans  | Leaf Essent. Oil |          |          |                      | --  |
| Myristica fragrans  | Seed             |          |          |                      | --  |
| Myristica fragrans  | Seed Essent. Oil | 106000.0 | 265000.0 | 1.0864685364033468   | --  |

| Plant                         | Part          | Low PPM  | High PPM | StdDev               | Reference   |
|-------------------------------|---------------|----------|----------|----------------------|---|
| <i>Myristica fragrans</i>     | Essential Oil | 132000.0 | 265000.0 | 1.7717899589754602   | --  |
| <i>Myroxylon balsamum</i>     | Plant         |          |          |                      | --  |
| <i>Myrrhis odorata</i>        | Essential Oil |          | 100.0    | -0.5591898169898767  | Hussain, R.A., et. al. 1990. Sweetening Agents of Plant Origin: Phenylpropanoid Constituents of Seven Sweet-Tasting Plants. Econ. Bot. 44 2: 174-182. Program Collab. Res. Pharm. Sci. Coll. Pharmacy Univ. Illinois at Chicago IL 60680, USA.                  |
| <i>Myrrhis odorata</i>        | Plant         |          |          |                      | Gruenwald, J. et al. 1998. PDR for Herbal Medicine. 1st ed. Medical Economics Co., Montvale, NJ. 1244 pp. (abbreviated as PHR or Physicians Herbal Reference in my mind)  |
| <i>Myrtus communis</i>        | Plant         | 242.0    | 1420.0   | 0.5234413297158256   | --  |
| <i>Myrtus communis</i>        | Leaf          | 150.0    | 1900.0   | -0.10118788305965953 | --  |
| <i>Nardostachys jatamansi</i> | Plant         |          |          |                      | --  |
| <i>Nepeta racemosa</i>        | Shoot         |          | 70.0     | -0.14046727069284576 | Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of <i>Nepeta racemosa</i> Lam. J. Ess. Oil Res. 5: 215-7.   |
| <i>Nepeta racemosa</i>        | Shoot         |          | 10.0     | -0.14645118725058165 | Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of <i>Nepeta racemosa</i> Lam. J. Ess. Oil Res. 5: 215-7.   |
| <i>Ocimum tenuiflorum</i>     | Leaf          |          |          |                      | =ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp |
| <i>Ocimum canum</i>           | Shoot         |          |          |                      | =ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp |
| <i>Ocimum basilicum</i>       | Essential Oil | 300.0    | 18000.0  | -0.4016792923021472  | --  |

| Plant                    | Part              | Low PPM | High PPM | StdDev               | Reference  |
|--------------------------|-------------------|---------|----------|----------------------|--|
| Ocimum gratissimum       | Plant             | 15.0    | 155.0    | -0.3717838201395376  | --   |
| Ocimum kilimandscharicum | Leaf              | 40.0    | 85.0     | -0.21902593685656874 | Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of <i>Ocimum killimandscharicum</i> Guerke. <i>J. Ess. Oil Res.</i> , 4: 125-128.  |
| Ocimum basilicum         | Shoot Essent. Oil | 4600.0  | 7200.0   | -0.46017762363908365 | --   |
| Ocimum gratissimum       | Leaf              | 23.0    | 43.0     | -0.22175276785352202 | Charles, D.J. and Simon, J.E. 1992. A New Geraniol Chemotype of <i>Ocimum gratissimum</i> L. <i>J. Ess. Oil Res.</i> 4: 231-234.   |
| Ocimum kilimandscharicum | Flower            | 55.0    | 105.0    | 0.03158136005381573  | Charles, D.J., and Simon, J.E. 1992. Essential Oil Constituents of <i>Ocimum killimandscharicum</i> Guerke. <i>J. Ess. Oil Res.</i> , 4: 125-128.  |
| Ocimum basilicum         | Leaf Essent. Oil  | 3700.0  | 13000.0  | -0.6816393866518402  | --   |
| Ocimum gratissimum       | Shoot             |         | 55.0     | -0.14196324983227973 | Vostrowsky, O., Garbe, W., Bestmann, H.J. and Maia, J.G.S. 1990. Essential Oil of Alfavaca, <i>Ocimum gratissimum</i> , from Brazilian Amazon. <i>Zeitschr. Naturforschung</i> 45(C): 1073-6.        |
| Ocimum basilicum         | Plant             | 2.0     | 180.0    | -0.35409162350207984 | --   |
| Ocimum gratissimum       | Flower            | 47.0    | 88.0     | -0.11053476018835531 | Charles, D.J. and Simon, J.E. 1992. A New Geraniol Chemotype of <i>Ocimum gratissimum</i> L. <i>J. Ess. Oil Res.</i> 4: 231-234.   |
| Origanum vulgare         | Plant             |         | 730.0    | 0.03513670252199119  | Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four <i>Origanum vulgare</i> Subspecies of Anatolian Origin. <i>J. Ess. Oil Res.</i> , 5: 425-431. |
| Origanum syriacum        | Shoot             |         | 265.0    | -0.12101954188020411 | Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. Essential Oil. <i>J. Ess. Oil Res.</i> 3: 121-123.   |
| Origanum vulgare         | Shoot Essent. Oil | 8400.0  | 8800.0   | -0.3008087496515222  | --   |
| Origanum onites          | Plant             |         | 16.0     | -0.4701524334438028  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Origanum sipyleum        | Shoot             |         | 725.0    | -0.0751428482708956  | Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of <i>Origanum sipyleum</i> of Turkish Origin. <i>J. Ess. Oil Res.</i> 4: 139-142.                      |

| Plant                        | Part  | Low PPM | High PPM | StdDev               | Reference   |
|------------------------------|-------|---------|----------|----------------------|---|
| <i>Origanum vulgare</i>      | Plant |         | 1.0      | -0.4807677514262774  | Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four <i>Origanum vulgare</i> Subspecies of Anatolian Origin. <i>J. Ess. Oil Res.</i> , 5: 425-431.                  |
| <i>Origanum vulgare</i>      | Shoot |         | 225.0    | -0.12500881958536136 | Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. <i>Z. Lebensm Unters Forsch</i> 197: 20-23. |
| <i>Origanum syriacum</i>     | Shoot |         | 325.0    | -0.11503562532246821 | Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. Essential Oil. <i>J. Ess. Oil Res.</i> 3: 121-123.  |
| <i>Origanum onites</i>       | Shoot |         | 60.0     | -0.14146459011913506 | Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. <i>Flav. &amp; Frag. J.</i> 8: 331-7.                       |
| <i>Origanum majorana</i>     | Plant | 15.0    | 86.0     | -0.42061428285892105 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| <i>Origanum sipyleum</i>     | Shoot |         | 25.0     | -0.14495520811114768 | Baser, K.H.C., Ozek, T., Kurkuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of <i>Origanum sipyleum</i> of Turkish Origin. <i>J. Ess. Oil Res.</i> 4: 139-142.  |
| <i>Origanum vulgare</i>      | Plant |         | 2.0      | -0.4800600635607791  | Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four <i>Origanum vulgare</i> Subspecies of Anatolian Origin. <i>J. Ess. Oil Res.</i> , 5: 425-431.                  |
| <i>Origanum vulgare</i>      | Plant |         | 1.0      | -0.4807677514262774  | Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four <i>Origanum vulgare</i> Subspecies of Anatolian Origin. <i>J. Ess. Oil Res.</i> , 5: 425-431.                  |
| <i>Origanum syriacum</i>     | Shoot |         | 265.0    | -0.12101954188020411 | Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of <i>Origanum syriacum</i> L. Essential Oil. <i>J. Ess. Oil Res.</i> 3: 121-123.  |
| <i>Origanum minutiflorum</i> | Shoot | 235.0   | 310.0    | -0.1165316044619022  | Baser, K.H.C., Tumen, G., Sezik, E. 1991. The Essential Oil of <i>Origanum minutiflorum</i> O. Schwarz and P.H. Davis. <i>J. Ess. Oil Res.</i> 3: 445-446.  |

| Plant                         | Part              | Low PPM | High PPM | StdDev               | Reference  |
|-------------------------------|-------------------|---------|----------|----------------------|--|
| <i>Origanum vulgare</i>       | Essential Oil     |         | 14300.0  | -0.43423733371804657 | --   |
| <i>Origanum onites</i>        | Shoot             |         | 60.0     | -0.14146459011913506 | Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. <i>Flav. &amp; Frag. J.</i> 8: 331-7.                                    |
| <i>Origanum majorana</i>      | Essential Oil     |         | 19000.0  | -0.39287982164920143 | --   |
| <i>Origanum vulgare</i>       | Plant             | 6.0     | 143.0    | -0.3802760745255173  | --   |
| <i>Origanum sipyleum</i>      | Shoot             |         | 325.0    | -0.11503562532246821 | Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of <i>Origanum sipyleum</i> of Turkish Origin. <i>J. Ess. Oil Res.</i> 4: 139-142.  |
| <i>Origanum sipyleum</i>      | Shoot             |         | 325.0    | -0.11503562532246821 | Baser, K.H.C., Ozek, T., Kurkcuoglu, M. and Tumen, G. 1992. Composition of the Essential Oil of <i>Origanum sipyleum</i> of Turkish Origin. <i>J. Ess. Oil Res.</i> 4: 139-142.  |
| <i>Panax ginseng</i>          | Root Essent. Oil  |         |          |                      | --   |
| <i>Panax ginseng</i>          | Root              |         |          |                      | --   |
| <i>Pelargonium graveolens</i> | Essential Oil     | 1.0     | 3.0      | -0.5600433656432124  | --   |
| <i>Pelargonium citrosum</i>   | Shoot             |         | 0.6      | -0.14738866751129356 | Matsuda, B. M., et al. 1996. Essential Oil Analysis and Field Evaluation of the Citrosa Plant 'Pelargonium citrosum' as a Repellent Against Populations of <i>Aedes</i> Mosquitoes. <i>J. Am. Mosq. Contr. Assoc.</i> 12(1):69-74. |
| <i>Pelargonium roseum</i>     | Shoot             |         | 126.0    | -0.1348822819056256  | --   |
| <i>Perilla frutescens</i>     | Shoot Essent. Oil |         | 7000.0   | -0.48009873288752886 | Nguyen, X. D., La, D. M., Lu'u, D. C., Leclercq, P. A. 1995. Essential Oil Constituents from the Aerial Parts of <i>Perilla frutescens</i> (L.) Britton. <i>J. Essent. Oil Res.</i> , 7(4): 429-432.                               |
| <i>Perilla frutescens</i>     | Plant             |         |          |                      | J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.   |
| <i>Petroselinum crispum</i>   | Fruit             |         |          |                      | --   |
| <i>Petroselinum crispum</i>   | Seed              | 1.0     | 31080.0  | 2.8922858120503183   | --   |
| <i>Petroselinum crispum</i>   | Seed Essent. Oil  |         | 444000.0 | 2.321492606163716    | --   |

| Plant                   | Part                | Low PPM  | High PPM | StdDev               | Reference  |
|-------------------------|---------------------|----------|----------|----------------------|--|
| Petroselinum crispum    | Fruit Essent. Oil   | 2000.0   | 248500.0 | 2.440212578691428    | --   |
| Petroselinum crispum    | Leaf                |          | 5.0      | -0.22421990066028927 | --   |
| Petroselinum crispum    | Root                |          |          |                      | --   |
| Peucedanum ostruthium   | Root                | 480.0    | 3360.0   | 0.9138032181924792   | --   |
| Peumus boldus           | Leaf                | 1.0      | 1000.0   | -0.15961997585151536 | --   |
| Pilocarpus jaborandi    | Leaf                |          | 125.0    | -0.21642895495470849 | --   |
| Pilocarpus microphyllus | Leaf                |          | 25.0     | -0.22292140970935914 | --   |
| Pimenta dioica          | Leaf Essent. Oil    |          |          |                      | --   |
| Pimenta racemosa        | Leaf                | 0.0      | 950.0    | -0.16286620322884066 | --   |
| Pimenta dioica          | Fruit               |          | 14.0     | -0.7151283547486822  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pimenta dioica          | Leaf                |          | 20.0     | -0.22324603244709168 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.                                   |
| Pimpinella anisum       | Essential Oil       |          |          |                      | --   |
| Pimpinella anisum       | Seed                | 1.0      | 306.0    | -0.47075335776323696 | --   |
| Pimpinella anisum       | Fruit               | 1.0      | 306.0    | -0.6388928640672148  | --   |
| Pinus sylvestris        | Twig                |          |          |                      | --   |
| Pinus sylvestris        | Essential Oil       |          |          |                      | --   |
| Pinus kesiya            | Resin, Exudate, Sap | 270000.0 | 941000.0 | 1.2421987829924845   | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| Pinus sylvestris        | Root Essent. Oil    | 175000.0 | 200000.0 | 1.0055904952191068   | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952.   |
| Pinus gerardiana        | Resin, Exudate, Sap | 700000.0 | 800000.0 | 0.8775991277083606   | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| Pinus sylvestris        | Plant               |          |          |                      | --   |
| Pinus wallichiana       | Leaf                |          |          |                      | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| Pinus sylvestris        | Leaf Essent. Oil    |          | 312000.0 | 0.9632438931581422   | --   |

| Plant                       | Part                 | Low PPM  | High PPM | StdDev                | Reference  |
|-----------------------------|----------------------|----------|----------|-----------------------|--|
| <i>Pinus sylvestris</i>     | Resin, Exudate, Sap  |          |          |                       | --   |
| <i>Pinus palustris</i>      | Resin, Exudate, Sap  | 128600.0 | 160750.0 | -0.7753819335709035   | --   |
| <i>Pinus insularis</i>      | Resin, Exudate, Sap  | 270000.0 | 941000.0 | 1.2421987829924845    | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| <i>Pinus sylvestris</i>     | Flower               |          |          |                       | --   |
| <i>Pinus roxburghii</i>     | Resin, Exudate, Sap  | 200000.0 | 300000.0 | -0.41530745131335556  | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.   |
| <i>Pinus sylvestris</i>     | Leaf                 | 600.0    | 2500.0   | -0.062233154531755666 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Piper auritum</i>        | Leaf                 |          |          |                       | Tramil   |
| <i>Piper cubeba</i>         | Fruit Essent. Oil    | 3000.0   | 130000.0 | 0.871725782335278     | --   |
| <i>Piper nigrum</i>         | Essential Oil        |          |          |                       | --   |
| <i>Piper cubeba</i>         | Fruit                | 1100.0   | 2200.0   | -0.1444064964278331   | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Piper nigrum</i>         | Seed Essent. Oil     |          |          |                       | --   |
| <i>Piper nigrum</i>         | Fruit Essent. Oil    | 45000.0  | 94000.0  | 0.39522346445492856   | --   |
| <i>Piper nigrum</i>         | Fruit                |          | 3810.0   | 0.2759330241103953    | --   |
| <i>Pistacia lentiscus</i>   | Resin, Exudate, Sap  |          |          |                       | --   |
| <i>Pogostemon cablin</i>    | Plant                |          |          |                       | --   |
| <i>Polygonum hydropiper</i> | Essential Oil        |          |          |                       | --   |
| <i>Porophyllum ruderale</i> | Plant                | 27.0     | 40.0     | -0.45316792467184336  | Loayza, I., de Groot, W., Lorenzo, D. et al. 1999. Composition of the essential oil of <i>Porophyllum ruderale</i> (Jacq.) Cass. from Bolivia. <i>Flav. &amp; Fragr. J.</i> 14: 393-8. |
| <i>Psidium guajava</i>      | Essential Oil        |          |          |                       | --   |
| <i>Psidium guajava</i>      | Leaf Essent. Oil     |          | 378000.0 | 1.3263284967282387    | --   |
| <i>Psidium guajava</i>      | Pericarp Essent. Oil |          |          |                       | --   |

| Plant                         | Part             | Low PPM | High PPM | StdDev                | Reference  |
|-------------------------------|------------------|---------|----------|-----------------------|--|
| Ptychopetalum olacoides       | Root Essent. Oil |         | 259000.0 | 1.6673845746159537    | Uber Bucek, E., Fournier, G., Dadoun, H. 1987. Volatile Constituents of Ptychopetalum olacoides Root Oil. <i>Planta Med.</i> 53, 2: 231. |
| Pycnanthemum virginianum      | Shoot            | 6.0     | 145.0    | -0.1329873749956759   | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum beadlei          | Shoot            |         | 21.0     | -0.1453541358816634   | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum tenuifolium      | Shoot            | 1.0     | 1020.0   | -0.04572192519536079  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum pilosum          | Leaf             | 38.0    | 140.0    | -0.2154550867415109   | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum montanum         | Shoot            | 7.0     | 272.0    | -0.12032141828180158  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum curvipes         | Shoot            |         | 84.0     | -0.13907102349604072  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum clinopodioides   | Shoot            | 84.0    | 88.0     | -0.138672095725525    | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum verticillatum    | Shoot            |         | 63.0     | -0.14116539429124828  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum setosum          | Shoot            | 20.0    | 1209.0   | -0.026872588038492726 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum albescens        | Shoot            | 16.0    | 54.0     | -0.14206298177490867  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum pilosum          | Flower           | 38.0    | 140.0    | 0.3241733723171091    | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum loomisii         | Shoot            | 2046.0  | 2646.0   | 0.11644221351928191   | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum californicum     | Shoot            |         | 144.0    | -0.13308710693830483  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum torreyi          | Shoot            |         | 20.0     | -0.14545386782429234  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| Pycnanthemum pycnanthemooides | Shoot            | 156.0   | 696.0    | -0.07803507460713462  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |

| Plant                             | Part                | Low PPM | High PPM | StdDev               | Reference  |
|-----------------------------------|---------------------|---------|----------|----------------------|--|
| <i>Pycnanthemum muticum</i>       | Shoot               | 29.0    | 200.0    | -0.12750211815108467 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Pycnanthemum incanum</i>       | Shoot               | 55.0    | 114.0    | -0.13607906521717278 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Ravensara aromatica</i>        | Leaf                |         | 60.0     | -0.2206490505452314  | --   |
| <i>Ribes nigrum</i>               | Leaf                |         |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Ribes nigrum</i>               | Fruit               |         |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Rosa centifolia</i>            | Essential Oil       |         |          |                      | --   |
| <i>Rosa gallica</i>               | Essential Oil       |         |          |                      | --   |
| <i>Rosa damascena</i>             | Essential Oil       |         |          |                      | --   |
| <i>Rosmarinus x lavandulaceus</i> | Shoot               | 405.0   | 1740.0   | 0.026085073497469923 | Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246. |
| <i>Rosmarinus officinalis</i>     | Resin, Exudate, Sap |         |          |                      | --   |
| <i>Rosmarinus officinalis</i>     | Shoot               |         | 565.0    | -0.09109995909152464 | Tucker, A. O. and Maciarello, M. J. 1998. The essential oils of some rosemary cultivars. Flavor and Fragrance Journal, 1: 137-142. 1986.   |
| <i>Rosmarinus officinalis</i>     | Essential Oil       | 79000.0 | 250000.0 | 1.6397978991812734   | --   |
| <i>Rosmarinus officinalis</i>     | Leaf                |         | 34.0     | -0.22233708878144057 | Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaid, M.H. 1994. Analysis and Biological Activity of the Essential Oil of Rosmarinus officinalis L. from Egypt. Flavour and Fragrance J. 9: 29-33.       |
| <i>Rosmarinus tomentosus</i>      | Shoot               | 665.0   | 2830.0   | 0.1347928909630053   | Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246. |

| Plant                     | Part              | Low PPM | High PPM | StdDev                | Reference  |
|---------------------------|-------------------|---------|----------|-----------------------|--|
| Rosmarinus officinalis    | Shoot             | 990.0   | 2180.0   | 0.0699671282541998    | Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246. |
| Rosmarinus officinalis    | Shoot Essent. Oil |         | 4400.0   | -0.7390731531173163   | --   |
| Rosmarinus officinalis    | Plant             | 34.0    | 7225.0   | 4.631569388933519     | --   |
| Rosmarinus eriocalyx      | Shoot             | 680.0   | 1225.0   | -0.02527687695642982  | Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246. |
| Rosmarinus x mendizabalii | Shoot             | 680.0   | 1500.0   | 0.0021494072665263534 | Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246. |
| Rosmarinus officinalis    | Shoot             | 1080.0  | 3000.0   | 0.15174732120992368   | Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246. |
| Rosmarinus officinalis    | Leaf Essent. Oil  |         | 276000.0 | 0.7651977457562714    | --   |
| Rosmarinus officinalis    | Leaf              |         | 34.0     | -0.22233708878144057  | Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaid, M.H. 1994. Analysis and Biological Activity of the Essential Oil of Rosmarinus officinalis L. from Egypt. Flavour and Fragrance J. 9: 29-33.       |
| Rosmarinus eriocalyx      | Shoot             | 680.0   | 1225.0   | -0.02527687695642982  | Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246. |
| Ruta graveolens           | Plant             |         |          |                       | --   |
| Salvia dorisiana          | Shoot             |         | 0.0      | -0.14744850667687096  | Tucker, A.O. & Maciarello, M.J. 1994. The Essential Oil of Salvia dorisiana Standley. J. Ess. Oil Res. 6: 97-8.  |

| Plant                      | Part             | Low PPM | High PPM | StdDev               | Reference  |
|----------------------------|------------------|---------|----------|----------------------|--|
| <i>Salvia triloba</i>      | Plant            | 270.0   | 1800.0   | 0.7923627186051836   | --   |
| <i>Salvia officinalis</i>  | Essential Oil    | 11700.0 | 40100.0  | -0.2072109908720455  | --   |
| <i>Salvia canariensis</i>  | Leaf             |         | 670.0    | -0.18104507654186247 | Casnigueral,S., Iglesias,J., Vila,R., Virigli,A. and Ibanez,C.1994. The Essential Oil from Leaves of <i>Salvia canariensis</i> L. Flav. & Frag. J. 9:201-204. S. Canigueral, Facultat de Farmacia, Universitat de Barcelona, Ave.Diagonal 643,E-08028, Barcelone Spain |
| <i>Salvia sclarea</i>      | Plant            | 0.0     | 3.0      | -0.47935237569528083 | Flavour and Fragrance Journal, 6: 154.   |
| <i>Salvia officinalis</i>  | Et               |         | 35000.0  | 1.0                  | --   |
| <i>Salvia officinalis</i>  | Plant            | 7.0     | 1540.0   | 0.6083638735756228   | --   |
| <i>Salvia officinalis</i>  | Leaf Essent. Oil | 35000.0 | 55000.0  | -0.4505855480163243  | --   |
| <i>Salvia gilliesii</i>    | Shoot            |         | 55.0     | -0.14196324983227973 | Velasco-Negueruela, A. et al. 1993. The Essential Oil of <i>Salvia gilliesii</i> Benth. J. Ess. Oil Res. 5: 319-320.   |
| <i>Sassafras albidum</i>   | Leaf             | 0.1     | 5.0      | -0.22421990066028927 | --   |
| <i>Sassafras albidum</i>   | Root             | 1000.0  | 2000.0   | 0.22299033506753657  | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Satureja glabella</i>   | Plant            |         | 40.0     | -0.45316792467184336 | --   |
| <i>Satureja montana</i>    | Essential Oil    |         | 6600.0   | -0.5019932577457291  | --   |
| <i>Satureja parvifolia</i> | Shoot            |         | 20.0     | -0.14545386782429234 | Zygadlo, J.A., Merino, E.F., Maestri, D.M., Guzman, C.A. and Espinar, L.A. 1993. The Essential Oils of <i>Satureja odora</i> and <i>Satureja parvifolia</i> from Argentina. J. Ess. Oil Res. 5: 549-51.  |
| <i>Satureja cuneifolia</i> | Shoot            |         | 405.0    | -0.10705706991215369 | Tumen, G. 1991. The Volatile Constituents of <i>Satureja cuneifolia</i> . J. Ess. Oil Res., 3: 365-366.  |
| <i>Satureja obovata</i>    | Leaf             |         | 225.0    | -0.20993650020005786 | Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . Phytochemistry 35(1): 83.  |

| Plant                       | Part  | Low PPM | High PPM | StdDev               | Reference  |
|-----------------------------|-------|---------|----------|----------------------|--|
| <i>Satureja obovata</i>     | Leaf  |         | 425.0    | -0.19695159069075655 | Arrebol, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . <i>Phytochemistry</i> 35(1): 83.                                  |
| <i>Satureja montana</i>     | Plant | 5.0     | 245.0    | -0.3080919122446896  | --   |
| <i>Satureja douglasii</i>   | Plant | 299.0   | 884.0    | 0.14412063380873102  | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Satureja thymbra</i>     | Shoot |         | 480.0    | -0.09957717421498383 | Lagouri, V., Blekas, G., Tsimidou, M., Kokkini, S., and Boskou, D. 1993. Composition and Antioxidant Activity of Essential Oils from Oregano Plants Grown Wild in Greece. <i>Z. Lebensm Unters Forsch</i> 197: 20-23.  |
| <i>Satureja odora</i>       | Shoot |         | 22.0     | -0.14525440393903447 | Zygadlo, J.A., Merino, E.F., Maestri, D.M., Guzman, C.A. and Espinar, L.A. 1993. The Essential Oils of <i>Satureja odora</i> and <i>Satureja parvifolia</i> from Argentina. <i>J. Ess. Oil Res.</i> 5: 549-51.         |
| <i>Satureja cilicica</i>    | Shoot |         | 150.0    | -0.13248871528253123 | Tumen, G. Baser, K.H.C. and Kirimer, N. 1993. The Essential Oil of <i>Satureja cilicica</i> . P.H. Davis. <i>J. Ess. Oil Res.</i> 5: 547-548.  |
| <i>Satureja obovata</i>     | Leaf  |         | 130.0    | -0.21610433221697595 | Arrebol, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . <i>Phytochemistry</i> 35(1): 83.                                  |
| <i>Satureja hortensis</i>   | Plant |         |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| <i>Satureja subspicata</i>  | Plant |         | 30.0     | -0.46024480332682643 | Stanic, G., Petricic, J., and Blazevic, N. 1991. Gas Chromatographic Investigations of Essential Oils of <i>Satureja montana</i> and <i>Satureja subspicata</i> from Yugoslavia. <i>J. Ess. Oil Res.</i> , 3: 153-158. |
| <i>Satureja grandiflora</i> | Shoot |         | 4.0      | -0.14704957890635523 | Carnat, A., Chossegros, A., and Lamaison, J. 1991. The Essential Oil of <i>Satureja grandiflora</i> (L.) Scheele from France. <i>J. Ess. Oil Res.</i> , 3: 361-362   |
| <i>Satureja obovata</i>     | Shoot | 300.0   | 510.0    | -0.09658521593611588 | Fitoterapia No.60: 277.  |

| Plant                             | Part             | Low PPM | High PPM | StdDev               | Reference   |
|-----------------------------------|------------------|---------|----------|----------------------|---|
| <i>Satureja obovata</i>           | Leaf             |         | 330.0    | -0.20311942270767466 | Arreola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . <i>Phytochemistry</i> 35(1): 83.   |
| <i>Schinus molle</i>              | Fruit            |         |          |                      | --  |
| <i>Sideritis mugronensis</i>      | Leaf             | 75.0    | 110.0    | -0.21740282316790607 | Manez, S., Jimenez, A., and Villar, A. 1991. Volatiles of <i>Sideritis mugronensis</i> Flower and Leaf. <i>J. Ess. Oil Res.</i> , 3: 395-397.   |
| <i>Sideritis athoa</i>            | Shoot            |         | 160.0    | -0.13149139585624192 | Ozek, T., Baser, K.H.C. and Tumen, G. 1993. The Essential Oil of <i>Sideritis athoa</i> Papanikolaou Et Kokkini. <i>J. Ess. Oil Res.</i> 5: 669-670.  |
| <i>Sideritis mugronensis</i>      | Flower           | 15.0    | 410.0    | 2.5813117526339426   | Manez, S., Jimenez, A., and Villar, A. 1991. Volatiles of <i>Sideritis mugronensis</i> Flower and Leaf. <i>J. Ess. Oil Res.</i> , 3: 395-397.   |
| <i>Sideritis pauli</i>            | Shoot            |         | 1540.0   | 0.006138684971683615 | Burzaco, A., Velasco-Negueruela, A. and Perez-Alonso, M.J. 1992. Essential Oil Analysis of <i>Sideritis pauli</i> Pau. <i>FFJ7</i> : 47-8. 1992.  |
| <i>Sideritis germanicolpitana</i> | Plant            | 88.0    | 104.0    | -0.40787590127995144 | <i>J. Essential Oil</i> , 4: 533.   |
| <i>Skimmia arborescens</i>        | Leaf             | 325.0   | 1560.0   | -0.12326222922547173 | --  |
| <i>Stachys germanica</i>          | Plant            |         | 67.0     | -0.43406035230338896 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| <i>Stevia rebaudiana</i>          | Leaf             |         | 5.0      | -0.22421990066028927 | Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia. Taylor & Francis. New York, NY. 211 pp.  |
| <i>Stevia rebaudiana</i>          | Flower           |         | 4.0      | -0.8127555896202593  | Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia. Taylor & Francis. New York, NY. 211 pp.  |
| <i>Syringa vulgaris</i>           | Flower           |         |          |                      | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.  |
| <i>Tagetes minuta</i>             | Leaf Essent. Oil |         |          |                      | Zygadlo, J. S., Guzman, C. A., Grosso, N. R. 1994. Antifungal Properties of the Leaf Oils of <i>Tagetes Minuta</i> L. and <i>T. filifolia</i> Lag. <i>J. Essent. Oil Res.</i> 6 6: 617-621. Cat Quim Org Fac Cien Exact Univ Nacion Cordoba Cordoba 5000 Argentina. |

| Plant                  | Part                | Low PPM | High PPM | StdDev               | Reference  |
|------------------------|---------------------|---------|----------|----------------------|--|
| Tagetes filifolia      | Shoot               |         | 4.7      | -0.14697976654651493 | --   |
| Tagetes minuta         | Plant               |         |          |                      | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.   |
| Tagetes minuta         | Flower Essent. Oil  |         | 100.0    | -1.0                 | --   |
| Tagetes filifolia      | Leaf Essent. Oil    |         |          |                      | Zygadlo, J. S., Guzman, C. A., Grosso, N. R. 1994. Antifungal Properties of the Leaf Oils of Tagetes Minuta L. and T. filifolia Lag. J. Essent. Oil Res. 6 6: 617-621. Cat Quim Org Fac Cien Exact Univ Nacion Cordoba Cordoba 5000 Argentina. |
| Tagetes minuta         | Essential Oil       |         | 10300.0  | -0.4694352163298297  | --   |
| Tamarindus indica      | Fruit Essent. Oil   |         |          |                      | --   |
| Tanacetum vulgare      | Plant               |         |          |                      | --   |
| Tanacetum parthenium   | Fruit Essent. Oil   |         | 2000.0   | -0.8225046812392973  | --   |
| Tanacetum parthenium   | Shoot               |         | 15.0     | -0.14595252753743698 | Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.   |
| Tanacetum parthenium   | Essential Oil       |         | 10000.0  | -0.47207505752571344 | --   |
| Telosma cordata        | Flower              |         | 31.0     | -0.5870417515885759  | K. Furukawa, T. Arai, S. Hashimoto, (1993); Volatile components of Telosma cordata Merrill flowers, Flavour Fragr. J., Vol 8, 221-223.   |
| Tetraclinis articulata | Resin, Exudate, Sap |         |          |                      | --   |
| Teucrium kotschyanum   | Leaf                |         | 0.0      | -0.2245445233980218  | Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.   |
| Teucrium cyprium       | Leaf                |         | 430.0    | -0.19662696795302403 | Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.   |

| Plant                            | Part  | Low PPM | High PPM | StdDev               | Reference  |
|----------------------------------|-------|---------|----------|----------------------|--|
| <i>Teucrium salviastrum</i>      | Shoot |         | 0.2      | -0.1474285602883451  | Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9. |
| <i>Teucrium oxylepis</i>         | Shoot |         | 0.35     | -0.1474136004969508  | Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9. |
| <i>Teucrium gnaphalodes</i>      | Shoot |         | 8.0      | -0.14665065113583953 | Perez-Alonso, M.J. Velasco-Negueruela, A. and Lopez-Saez, J.A. 1993. The Essential Oils of Two Iberian <i>Teucrium</i> Species. <i>J. Ess. Oil Res.</i> 5: 397-402.                        |
| <i>Teucrium asiaticum</i>        | Shoot |         | 0.18     | -0.14743055492719773 | Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9. |
| <i>Teucrium polium</i>           | Plant |         |          |                      | Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.  |
| <i>Teucrium pseudoscorodonia</i> | Shoot |         |          |                      | Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9. |
| <i>Teucrium oxylepis</i>         | Shoot |         | 0.18     | -0.14743055492719773 | Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9. |
| <i>Teucrium scorodonia</i>       | Shoot |         | 0.08     | -0.14744052812146066 | Velasco-Negueruela, A. and Perez-Alonso, M.J. 1990. The Volatiles of Six <i>Teucrium</i> Species from the Iberian Peninsula and the Balearic Islands. <i>Phytochemistry</i> 29(4): 1165-9. |
| <i>Teucrium divaricatum</i>      | Leaf  |         | 365.0    | -0.20084706354354695 | Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some <i>Teucrium</i> Species from Cyprus. <i>J. Ethnopharm.</i> 35: 105-113.       |

| Plant                          | Part          | Low PPM | High PPM | StdDev                | Reference  |
|--------------------------------|---------------|---------|----------|-----------------------|--|
| <i>Teucrium micropodioides</i> | Leaf          |         | 265.0    | -0.20733951829819758  | Arnold, N., Bellomaria, B., Valentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some <i>Teucrium</i> Species from Cyprus. <i>J. Ethnopharm.</i> 35: 105-113.   |
| <i>Teucrium polium</i>         | Shoot         |         | 80.0     | -0.13946995126655645  | Perez-Alonso, M.J. Velasco-Negueruela, A. and Lopez-Saez, J.A. 1993. The Essential Oils of Two Iberian <i>Teucrium</i> Species. <i>J. Ess. Oil Res.</i> 5: 397-402.  |
| <i>Thymus orospedanus</i>      | Plant         |         | 665.0    | -0.010863008735399004 | J. Nat. Prod.  |
| <i>Thymus saturejoides</i>     | Shoot         |         | 1750.0   | 0.02708239292375924   | Tantaoui-Elaraki, A., Lattaoui, N., Errifi, A. and Benjlali, B. 1993. Composition and Antimicrobial Activity of the Essential Oils of <i>Thymus broussonettii</i> , <i>T. zygis</i> and <i>T. saturejoides</i> . <i>J. Ess. Oil Res.</i> 5: 45-53. |
| <i>Thymus capitatus</i>        | Plant         | 10.0    | 150.0    | -0.3753222594670292   | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Thymus funkii</i>           | Shoot         |         | 425.0    | -0.10506243105957506  | Vila, R., et al. 1995. Composition and study of the variability of the essential oil of <i>Thymus funkii</i> Cousson. <i>Flav. &amp; Fragr. J.</i> 10(6): 379-383.   |
| <i>Thymus zygis</i>            | Shoot         | 60.0    | 490.0    | -0.09857985478869451  | De Cunha, A.P. and Salguiero, L.R. 1991. The Chemical Polymorphism of <i>Thymus zygis</i> ssp. <i>sylvestris</i> from Central Portugal. <i>J. Ess. Oil Res.</i> 3: 409-12.   |
| <i>Thymus longicaulis</i>      | Shoot         |         | 3.0      | -0.14714931084898417  | Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of <i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> in the same Population. <i>J. Ess. Oil Res.</i> 5: 291-5.                              |
| <i>Thymus vulgaris</i>         | Plant         | 15.0    | 1598.0   | 0.6494097697745248    | --   |
| <i>Thymus mastichina</i>       | Plant         |         | 260.0    | -0.297476594262215    | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.   |
| <i>Thymus vulgaris</i>         | Essential Oil |         | 8000.0   | -0.489673998831605    | --   |
| <i>Thymus riatarum</i>         | Shoot         |         | 230.0    | -0.12451015987221671  | Iglesias, J., Vila, R., Canigueral, S., Bellakdhar, and II Idrissi, A. 1991. Analysis of the Essential Oil of <i>Thymus riatarum</i> . <i>J. Ess. Oil Res.</i> 3: 43-4.  |

| Plant                       | Part   | Low PPM | High PPM | StdDev                | Reference  |
|-----------------------------|--------|---------|----------|-----------------------|--|
| <i>Thymus x citriodorus</i> | Plant  |         | 50.0     | -0.4460910460168602   | Stahl-Biskup, E. and Holthuijzen, J. 1995. Essential oil and glycosidally bound volatiles of lemon-scented thyme, <i>Thymus x citriodorus</i> (Pers.) Schreb. Flav. & Fragr. J. 10: 225-229.   |
| <i>Thymus zygis</i>         | Shoot  |         | 32.0     | -0.14425708451274516  | Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. <i>Thymus zygis</i> Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JEO5: 153-8.  |
| <i>Thymus longicaulis</i>   | Shoot  |         | 3.0      | -0.14714931084898417  | Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of <i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> in the same Population. J. Ess. Oil Res. 5: 291-5.                               |
| <i>Thymus serpyllum</i>     | Plant  | 1.0     | 362.0    | -0.2252924319813873   | --   |
| <i>Thymus capitatus</i>     | Shoot  |         | 4.0      | -0.14704957890635523  | Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. Flav. & Fragr. J. 8: 331-7.  |
| <i>Thymus broussonettii</i> | Shoot  |         | 860.0    | -0.061679036015989834 | Tantaoui-Elaraki, A., Lattaoui, N., Errifi, A. and Benjlilai, B. 1993. Composition and Antimicrobial Activity of the Essential Oils of <i>Thymus broussonettii</i> , <i>T. zygis</i> and <i>T. saturejoides</i> . J. Ess. Oil Res. 5: 45-53. |
| <i>Thymus funkii</i>        | Shoot  |         | 425.0    | -0.10506243105957506  | Vila, R., et al. 1995. Composition and study of the variability of the essential oil of <i>Thymus funkii</i> . Cousson. Flav. & Fragr. J. 10(6): 379-383.  |
| <i>Thymus zygis</i>         | Shoot  |         | 32.0     | -0.14425708451274516  | Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. <i>Thymus zygis</i> Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JEO5: 153-8.  |
| <i>Thymus longicaulis</i>   | Shoot  |         | 635.0    | -0.08411872310749943  | Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of <i>Thymus longicaulis</i> C. Presl subsp. <i>longicaulis</i> in the same Population. J. Ess. Oil Res. 5: 291-5.                               |
| <i>Tilia</i> sp.            | Flower |         |          |                       | --   |

| Plant                           | Part                | Low PPM | High PPM | StdDev               | Reference   |
|---------------------------------|---------------------|---------|----------|----------------------|---|
| <i>Trachyspermum ammi</i>       | Fruit               | 99.0    | 720.0    | -0.530805558785956   | --  |
| <i>Trichostemma dichotomum</i>  | Shoot               |         | 35.0     | -0.14395788868485837 | Tucker, A.O. and Maciarello, M.J. 1990. The Essential Oil of <i>Trichostemma dichotomum</i> . <i>J. Ess. Oil Res.</i> 2: 149-150.   |
| <i>Turnera diffusa</i>          | Leaf                | 50.0    | 100.0    | -0.21805206864337115 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.  |
| <i>Umbellularia californica</i> | Plant               | 360.0   | 1440.0   | 0.5375950870257917   | --  |
| <i>Vaccinium corymbosum</i>     | Fruit               |         |          |                      | --  |
| <i>Valeriana officinalis</i>    | Leaf Essent. Oil    | 1000.0  | 239100.0 | 0.5622004446693538   | --  |
| <i>Valeriana officinalis</i>    | Root                | 1.0     | 500.0    | -0.5389356389673264  | Father Nature's Farmacy: The aggregate of all these three-letter citations.   |
| <i>Valeriana officinalis</i>    | Root Essent. Oil    |         | 25000.0  | -0.9573580453647603  | --  |
| <i>Valeriana officinalis</i>    | Rhizome Essent. Oil |         |          |                      | --  |
| <i>Valeriana officinalis</i>    | Leaf                | 2.0     | 6095.0   | 0.17117059389793504  | Father Nature's Farmacy: The aggregate of all these three-letter citations.   |
| <i>Valeriana officinalis</i>    | Essential Oil       |         |          |                      | --  |
| <i>Vetiveria zizanioides</i>    | Root                |         | 15.0     | -0.7852917039052655  | --  |
| <i>Vitex agnus-castus</i>       | Fruit Essent. Oil   |         | 6.6      | -0.8488896734743719  | Jim Duke's personal files.  |
| <i>Vitex agnus-castus</i>       | Leaf                |         | 21.0     | -0.22318110789954515 | Ekundayo, O., Laakso, I., Holopainen, M., Hiltunen, R., Oguntiemein, B., and Kauppinen, V. 1990. The Chemical Composition and Antimicrobial Activity of the Leaf Oil of <i>Vitex agnus-castus</i> L. <i>J. Essential Oil Research</i> , 2: 115-119. |
| <i>Vitex agnus-castus</i>       | Fruit               | 21.0    | 4000.0   | 0.32553830914285703  | --  |
| <i>Vitex agnus-castus</i>       | Flower              |         |          |                      | --  |
| <i>Vitex agnus-castus</i>       | Leaf Essent. Oil    |         | 43200.0  | -0.5155006741091597  | Jim Duke's personal files.  |
| <i>Zea mays</i>                 | Husk Essent. Oil    |         |          |                      | --  |
| <i>Zingiber officinale</i>      | Rhizome Essent. Oil |         | 39000.0  | 1.392186073629917    | --  |
| <i>Zingiber officinale</i>      | Rhizome             |         | 720.0    | 1.111167799007431    | --  |